

3 VCR/2 CAMERA TESTS

1ST HOME COMPUTER TEST

VIDEO

04834

FALL 1978

\$1.50

The Magazine For Home Video Enthusiasts



NOW THAT YOU OWN A VCR, HERE'S WHAT TO DO WITH IT:

14 PAGES ON SOFTWARE, HOW-TO'S AND WHERE-TO'S • TECHNICAL Q&A • NEW PRODUCTS • VIDEO ENVIRONMENT • SINGER JACK JONES: VIDEO HOBBYIST

IN-DEPTH TESTING AND EVALUATION ON:

SONY BETAMAX SL-8600 • VIDEOBRAIN FAMILY COMPUTER • JVC VIDSTAR
MAGNAVOX BLACK & WHITE CAMERA • IMERO FIORENTINO COLOR
TV PICTURE ANALYZER • MAGNAVOX VCR • SONY BLACK & WHITE CAMERA



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finances, teaches skills,
and plays terrific games.*

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THE VIDEO

It can do complex calculations, keep track



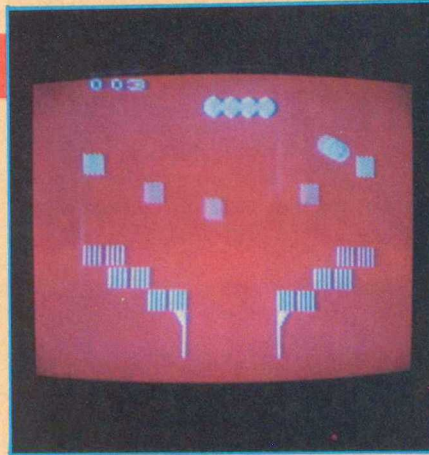
THE AGE OF home computers is beginning. This is really the first year the average consumer can own and operate complex, sophisticated

computers that can handle their financial affairs, store and retrieve information, do a variety of odd jobs, teach skills, and provide hours of entertainment. A good many of the new home computers display their programs on TV sets and some don't; we will only test and report on the ones that use a TV display and are therefore a part of the video world.

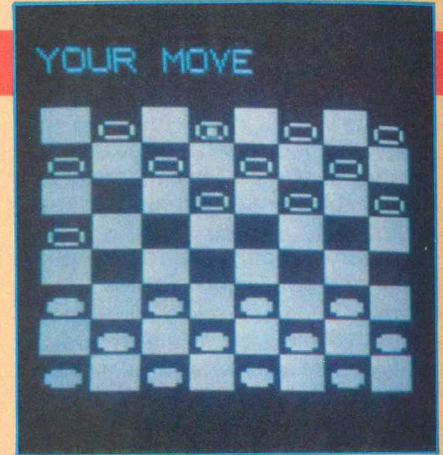
The first home, or family, computer tested was the VideoBrain, which just went on the market in July-August. It carries a suggested retail price of \$499.95 (which includes keyboard console, antenna switch box, TV hookup cord, AC power adaptor, two joysticks for game-playing, a detailed Owner's Manual, and an introductory cartridge called the Financier), measures 5 x 14 x 11½ inches (h/w/d) and weighs 10 pounds. Individual program cartridges, discussed on pages 32-33; are priced from \$19.95 to \$70 and are available in three basic categories: entertainment, education, and home management. At the moment there are fifteen cartridges, but additional ones will be coming out periodically. The VideoBrain is FCC approved for use with any home color or black-and-white TV set; as you'll understand while reading this report, however, having a color set is a definite advantage.

Testing Procedure

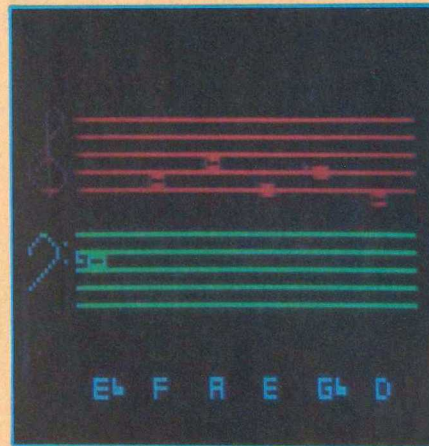
We received the VideoBrain (Model



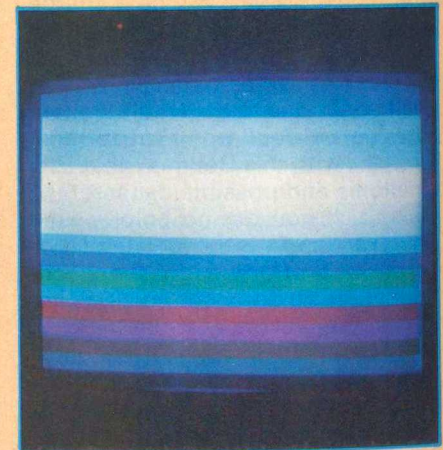
Pinball



Checkers



Music Teacher 1



VideoBrain's Color Bars

101A, serial number 002075) direct from the manufacturer, and according to them were one of the first groups to get the unit for testing. Since the computer was not yet on the market during our testing period, the whole range of cartridges and the accessories were not available to us, but we did receive the Financier, Wordwise 2, Music Teacher 1, Pinball, and Checkers as a representative sampling.

Testing was conducted by the Editor and Technical Editor in the Editor's home in June 1978 using a

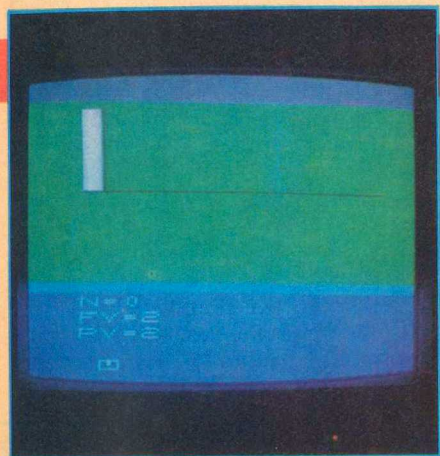
Sony Trinitron Model KV-1724 for the computer display. We were interested in determining a number of things: what chores the computer could do and their degree of complexity, the ease of operation, the level of entertainment, and the value in the larger world of video.

Making the Connection

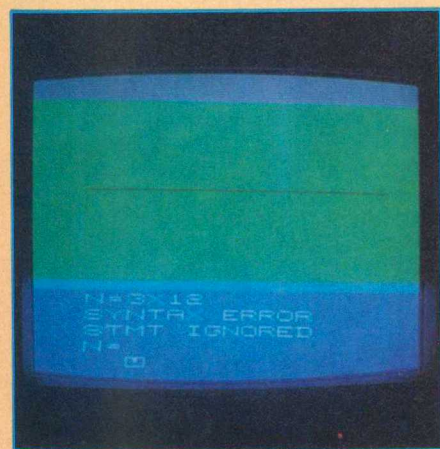
The VideoBrain is hooked up to the TV set in much the same way a video game is, except that the computer's switch box accommodates both 75 ohm and 300 ohm lead-in wires. We

BRAIN FAMILY COMPUTER

of finances, play games, and teach skills.



Financier Calculation



If you make a syntax mistake, the computer will stop and tell you.

chose to use the 300 ohm connection and accomplished the hookup quickly with a screwdriver by first connecting the TV's 300 ohm antenna wires to the appropriate screws on the computer's switch box, then connecting the antenna wires from the switch box to the TV, and finally plugging the computer signal cable from the back of the keyboard console into the socket marked *computer* on the switch box. After tuning both the TV and the channel selector switch on the back of the computer console to channel 3 (channel 4 in some areas) and moving the switch on the switch box from the TV position to *computer*, we were ready to go.

Standard household current (120 V AC in North America) is the only current that can be used. The AC adaptor, included with the purchase of the VideoBrain, is plugged into a wall socket.

If you have more than one TV set, you may want to use the computer with each one. Since FCC rules prohibit connecting more than one TV to a single computer at any given time (it can overload the circuits and

cause interference to other TVs in the neighborhood), the Owner's Manual suggests attaching an antenna switch box to each TV so the computer can be moved around and connected quickly with a minimum of fuss. Only one switch box is included with each VideoBrain purchase, but additional boxes can be bought direct from the manufacturer for \$8.50 each.

Ease of Operation

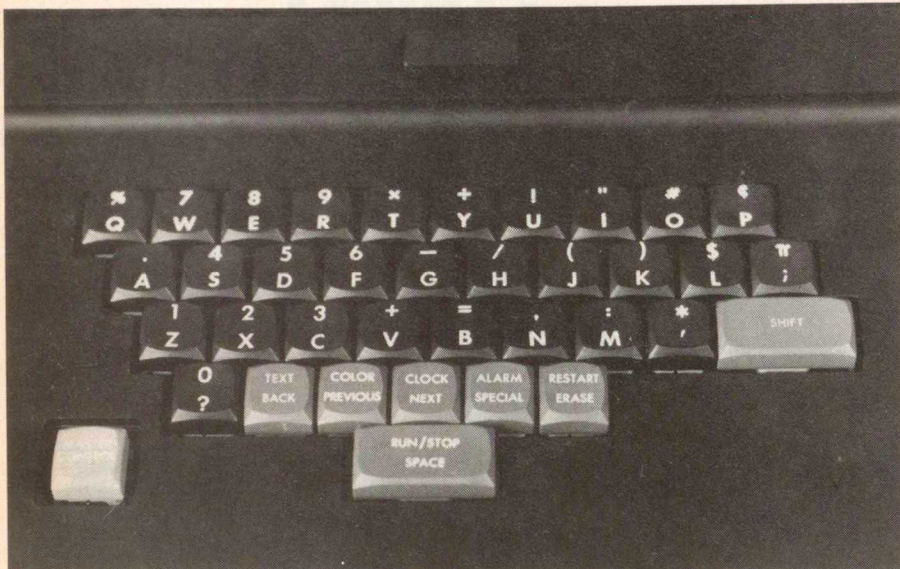
The very idea of using a computer can be intimidating, so the degree of operational difficulty and the amount of special computer language and technique required to use any unit is important. We found the VideoBrain fairly easy to use once we got used to the keyboard and the precise way information had to be fed to the computer. Careful study of the Owner's Manual and several practice sessions should eliminate most initial problems; frequent use should take care of the rest.

The VideoBrain keyboard is set up like a standard typewriter—but with a few important differences. The letters are arranged exactly as on a

The VideoBrain is a pre-programmed computer that uses a modified typewriter keyboard and displays its programs on a standard TV screen.



VIDEOBRAIN



The VideoBrain has a modified typewriter keyboard. Letters are in familiar places; numbers and punctuation marks have upper-case positions on the same keys.

typewriter; because of space limitations on the console, however, the numbers and punctuation marks are not . . . instead of being separate keys they share keys with the letters and are arranged in a different order. Put simply, the letters occupy the lower-case positions on the keys and the numbers and punctuation marks, for the most part, the upper-case positions.

There are also a number of special computer keys. *Master Control* is used at any point in any program to return the computer to the start of the program. *Shift* changes the keyboard from upper case to lower case and back again. Unlike a typewriter, though, it is not depressed and held down for upper case; it is hit each time a shift is required. Additional keys provide one of two functions depending on whether they're upper or lower case: *Text/Back*, *Color/Previous*, *Alarm/Special*, and *Restart/Erase*. These will be explained as we go along in the test report.

In general, the keyboard is easy enough to use once you learn the

THE CARTRIDGES

By the end of the year, there may be as many as thirty VideoBrain cartridges, double the number on the market right now. What follows is a rundown of the carts that are currently available as we go to press or will be before summer's end. Those that we have experienced and tested ourselves are marked with asterisks (**), and our evaluations are given.

Home Management Cartridges

Financier (VB-81)** \$70.00 if bought separately

This cartridge is included with the purchase of the VideoBrain. Put simply, it's the calculator cartridge—it does calculatorlike computations and has twelve built-in formulas that can compute such things as mortgage cost, accumulated principal and interest, compound interest, depreciation, etc. One test we did was set up a hypothetical problem for the computer to help us solve: namely, to compute how much money every month, starting now, we would have to put into a savings account paying 5½ percent interest in order to have \$10,000, \$15,000, or \$20,000 to put a daughter through college in ten years. By following the instructions in the booklet that accompanies the cartridge, we worked out the three problems. Our answers came in two ways. On the bottom of the screen, we got the actual numerical answer at the end of each computation—so much to accrue \$10,000, so much for \$15,000, etc. At the same time, a vertical colored bar appeared on the top half of the screen. When all three computations were finished, we had three colored bars—a visual display for purposes of comparison.

As far as doing the calculations are concerned, the VideoBrain has it all over conventional calculators; instead of leaving it up to the user to figure out what data he needs to enter and when, the computer prints out each next step in the process, in effect prompting the user. This makes doing complex mathematical problems almost easy. Of course, it helps to be familiar with financial jargon, but even if you aren't you can use the program successfully as long as you follow the instructions and enter the information exactly the way the booklet indicates (the computer will tell you if you do something wrong; you then start again). Our only criticism of this cartridge is that the entire computation does not stay on the screen through to the end. Because of the split screen, the lines of computation disappear under the cut-off for the bar graph half of the screen as the problem progresses and the first lines move up to make room for

what follows. This fact does not affect the problem-solving in the slightest, but we feel that it would be an advantage if the user could see the problem worked out in its entirety, with all the steps leading up to the answer clearly visible.

Money Manager (VB-1000)

\$80.00

This cartridge is designed to help families fight inflation by allowing them to keep detailed financial records more easily. Users can maintain running totals of income, expenses, credit accounts, and assets; balance a checkbook; record and analyze monthly expenditures for budgeting purposes; keep track of tax-deductible expenses; and maintain monthly credit card balances, among other things. When used in conjunction with Expander 1 and two audiocassette recorders, these financial transactions can be stored and called up for periodic summaries and analyses.

Timeshare

\$80.00

The Timeshare cartridge, to be used with the Expander 2 accessory, will enable the VideoBrain to prompt you so you can access the data banks of computers you do business with. Use of the Timeshare cartridge and Expander 2 interfaced with the computer you want to talk to puts at your disposal the power of a large timesharing computer system. Available in September.

Programmable

\$150.00

This cartridge enables the user to write his own sophisticated programs using powerful computer language in any area of interest by taking him step-by-step through the program-writing process. It will be available in October.

Educational Cartridges

Lemonade Stand

\$29.95

This cartridge simulates a business situation and teaches the essentials of economics and business management. Up to three players are called upon to make daily business decisions: how many glasses of lemonade to make, what prices to charge, how many advertising signs to make up, etc. Changing market factors such as sunny days, rainstorms, and the circus coming to town, complicate matters. Four different skill levels are offered for both children and adults.

Music Teacher 1**

\$29.95

This cart turns the VideoBrain keyboard into a "piano keyboard"

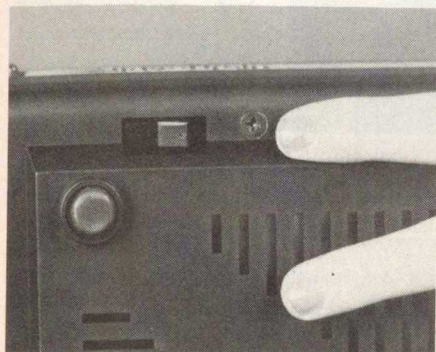
positions of the keys and what they do. Like a good electric typewriter, the keys are finger-contoured, wide enough, comfortable to use, and they respond quickly.

The only difficulty is shifting from upper case to lower case. When the keyboard is in upper case, either a light-colored rectangle or a boxed *U* appears at the bottom of the screen display; a dark rectangle or boxed *L* appears for lower case. The problem

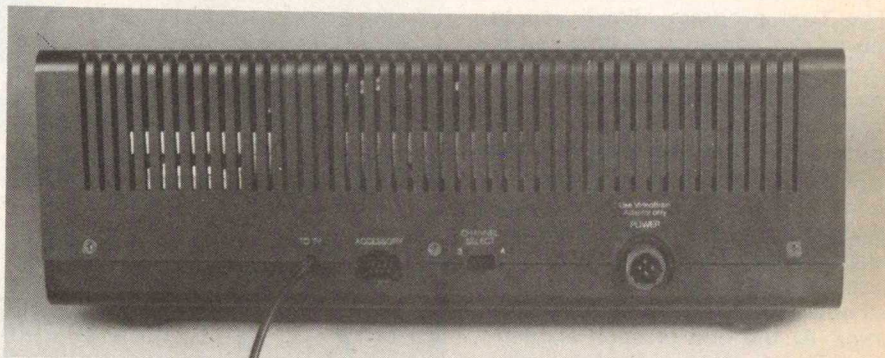
is that until the keyboard is completely mastered, you have to look at the keys while you type—and, at the same time, because you can't tell by looking at the keyboard whether you're in upper or lower case, as you can with a typewriter, you have to keep looking up at the TV screen. It's the same kind of inconvenience you might expect when using any unfamiliar piece of equipment, and it can be overcome in time, but it does slow you down in the

beginning.

Two joysticks to use with the game cartridges are included with purchase. Each VideoBrain has four joystick sockets located in the front of the unit, so two more joysticks can be bought separately if desired, bringing the total of possible game players up to four when applicable. The controls are easy to operate. In addition to the joysticks themselves, the control boxes have pushbuttons on the sides that



The off/on switch is conveniently located just under the front of console.



On the back are the power adaptor plug, VideoBrain accessory hookup, to-TV wire, and channel select switch (for 3 or 4, whichever doesn't broadcast).

to teach the user how to read, write, and play music in a 4-octave range. When you hit a key, you hear the note played through the TV and see it named and displayed on a musical staff. Once you've written a tune, the VideoBrain will play it back for you; the idea is obviously to learn to read music and associate the notes at the same time. Two songs are built into the cartridge. By pressing a simple combination of keys, we heard "Happy Birthday" and "Row, Row, Row Your Boat." We feel this is a most unusual cartridge, and a fun way to teach kids the basics of music.

Math Tutor 1

\$29.95

This cartridge teaches addition, subtraction, multiplication, and division on four different skill levels in a highly personalized way—the computer congratulates the player when he's right, encourages him when he's wrong, and even calls him by name. It also allows a parent or teacher to enter special problems for the child to solve.

Wordwise 1

\$19.95

Word-building skills are taught to up to four people on three different skill levels. The computer gives each person a random assortment of ten letters and challenges the player to build words with them. The program includes a challenge round (to correct misspellings) and a song salute to the best word-builder.

Wordwise 2**

\$19.95

If you can't master the special VideoBrain keyboard, this cart will help. It puts you through a set of touch-typing exercises, letting you know when you make a mistake and keeping track of your words-per-minute progress as you finish each exercise. It also includes a word game, but we feel its primary importance is in familiarizing the user with the computer's keyboard.

Entertainment Cartridges

Gladiator

\$29.95

Three basic games, and 381 variations, make up this cartridge. In Ancient Gladiator, you aim and fire your bow and arrow to fend off hungry lions as well as your opponent. In Modern Gladiator, you can run or pass to two receivers to score points. Future Gladiator pits two laser-armed space ships against each other in an intergalactic battlefield. The strategic nature of each game changes as you add bouncing arrows,

joystick-guided lasers, bullet passes, etc. You can play against other players or against VideoBrain.

Pinball**

\$19.95

The video pinball game is very much like the real thing. One player at a time has five chances to make the highest score by using two flippers, controlled by two joysticks, to keep the ball in play. Every time you score by hitting a thumper-bumper, VideoBrain sounds off and the bumper flashes. It's quite challenging—you have to play with two joysticks at the same time—and lots of fun. A real treat for the eyes—the screen color changes constantly, lights flash, something is always happening. A treat for the ears, too, as the sound effects are absolutely terrific. In short, a great game!

Tennis

\$29.95

Variations of the basic game include curve balls, net rushing, handicapping, and a wide variety of skills and speeds. One variation is "bounce-back" tennis—the ball is programmed to hit the net first, requiring a second hit at hard angles if it's to go over the net. In all, a total of 96 variations. Scoring is conventional: 4 points to a game, six games to a set.

Vice Versa

\$29.95

In an update of the ancient oriental game Go, players take turns placing pieces on a board with the objective of surrounding and capturing the opponent's pieces.

Checkers**

\$29.95

There are four skill levels (we thought of them as "personalities") you can choose to play against—put simply, they are defensive, aggressive, super-intelligent, and not quite championship caliber. Tournament rules are followed and you move your marker around the regulation 64-space board by using the joystick; once you have found the move you want to make you push the button on the side of the joystick to confirm. In some instances, the game can be very fast and you have to be on your toes, but that just adds to the fun. A very good game!

Blackjack

\$19.95

One or two players can try to beat the dealer. Each starts with \$500 and can bet up to \$250. If you win—and the computer plays a musical tone to tell you whether you won or lost—you get 1½ times your bet.

VIDEOBRAIN

are used in some instances.

The Built-In Programs

Four programs—Text, Clock, Alarm, and Color—are built into the VideoBrain. Each can be used individually, but they also provide the basic text and timekeeping capabilities that most of the cartridge programs use.

The Text program allows you to write on the screen and store in the memory any message up to seven lines long with a maximum of sixteen characters in each line. The message is entered by first pressing the *Text* key and then typing out whatever it is you want to say.

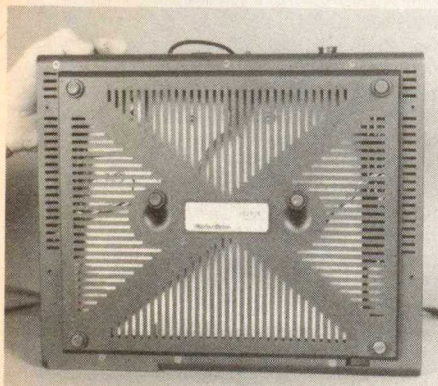
As you type, you'll see a short underline appear to the right of each character typed—actually under the next character to be typed. This is the *cursor*. At the end of each sixteen-character line, the cursor automatically jumps to the beginning of the next line.

If you make a typing mistake, or want to edit or change the message for whatever reason, you do it by moving the cursor around. Several of the special computer keys are used to do it. The *Back* key, for example, moves the cursor back one space—under the character you typed last. To correct a typo, you simply type a new character over the old incorrect one—

(continued on page 69)



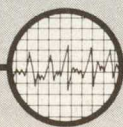
Adequate air circulation is a must. The VideoBrain should not rest on rugs that could block air vents.



The Financier cartridge comes with purchase. There are fifteen cartridges available now; more are planned.



Up to four people can play VideoBrain games. Two remote joystick controls, which plug into console front, come with unit. Two more can be bought separately.



VideoTest Report number 11

VideoBrain Family Computer

DATA

Date of test: June 1978

Model: 101A

Suggested retail price: \$499.95 (including keyboard console, antenna switch box, TV hookup cord, AC power adaptor, two joysticks, Financier cartridge, and Owner's Manual)

Accessories:

Program cartridges—\$19.95 to \$70

Expander 1 (for permanent information storage)—\$150

Expander 2 (for timesharing)—\$300

2 additional joysticks—\$8.50 each

Function: to entertain, educate, and perform mathematical and analytical chores

Operational requirements: TV set, preferably color

Dimensions:

5 inches (height)

14 inches (width)

11½ inches (depth)

Weight: 10 pounds

Casing: plastic

Controls: modified typewriter keyboard plus special computer keys—Master Control, Text/Back, Color/Previous, Alarm/Special, Restart/Erase—that have special computer functions

Color variations: a full color spectrum—17 background colors, 8 foreground colors—plus back and white

Audio variations: a full range of sounds—alarm, musical notes, buzzes, beeps, etc.

Built-in programs: Text function, Clock function, Alarm function, Color function

Program cartridges available: home money management, games, skill teaching

Power consumption: 10 watts

Warranty: electronic circuitry—1 year; console, joysticks, other component parts—90 days

TEST REPORT AND RATINGS

Overall display quality: excellent

Computer figures: very good

Computer text and legends: very good

Overall audio quality: excellent sound effects through TV set

Ease of operation: very good

Overall performance: very good